IN THE SPECIFICATION:

Please REPLACE the paragraph beginning at page 3, line 16, with the following:

a2

There is a method of forming the air path by cutting a part of the partition. However, this method may increase the number of manufacturing steps for the cutting process and may reduce the manufacturing yield since the partition can be broken by the cutting process.

Please REPLACE the paragraph spanning pages 3-4, with the following:

a3

According to the present invention, a mesh-patterned partition is arranged on the inner surface of one of the substrates. The partition has low portions that form a mesh-like air path that travels through all of the gas-filled space enclosed by the partition in a plan view. For example, in a simple check pattern in which a line along the horizontal direction and a line along the vertical direction cross each other, the portion corresponding to the line along the horizontal direction is made low. In this case, the pattern width (the line width) of the portion corresponding to the line along the horizontal direction is made thicker than the pattern width of the portion corresponding to the line along the vertical direction so as to generate a height difference. The shrink quantity in the thick portion is smaller in the width direction but is larger in the height direction than the thin portion.

Please REPLACE the paragraph beginning at page 6, line 6, with the following:

a4

The address electrodes A are arranged on the inner surface of the glass substrate 21 of the back substrate structure 20 as one for each column and are covered with a dielectric layer 24. On the dielectric layer 24, the partition 29 is disposed, which has a grid pattern with partially low profile structure that is unique to the present invention. The partition 29 is made of a baked material of a low melting point glass and includes a portion for dividing the discharge space into columns (hereinafter referred to as a vertical wall) 291 and a portion for dividing a discharge space into rows (hereinafter referred to as a horizontal wall) 292. The intersection of the vertical wall 291 and the horizontal wall 292 is a common part of them. The horizontal wall 292 is lower in height (i.e., is shorter) than the vertical wall 291 by approximately 10 μm. The upper surface of the dielectric layer 24 and the side face (i.e., side walls) of the partition 29 are

covered with red, green and blue colors of fluorescent material layers 28R, 28G and 28B for color display. The italic letters (*R, G* and *B*) in Fig. 1 signify light emission colors of the fluorescent materials. The color arrangement has a repeating pattern of red, green and blue colors in such a way that the cells in a column have the same color. The fluorescent material layers 28R, 28G and 28B are excited by ultraviolet rays generated by the discharge gas in the corresponding cell and emit light.

Please REPLACE the paragraph beginning at page 6, line 30, with the following:

As shown in Fig. 2, the metal film 42 of each of the display electrodes X, Y is overlaid on the partition 29 so as to cover the partition 29 partially, for reducing reflection of external light rays, and to avoid overlapping onto the fluorescent material on the partition sidewalls. The transparent conductive film 41 is patterned in such a way that the portion for the surface discharge is substantially separated from the portion overlaid on the metal film 42, for suppressing discharge current so as to enhance the efficiency of light emission. In the case of 42 inch wide VGA type, the portion for the display discharge of the transparent conductive film 41 is separated from the horizontal wall 292 by a distance more than 30 μm, so that energy loss is largely reduced compared with the case where the distance is less than 30 μm. It is desirable that the distance between the horizontal wall 292 and the transparent conductive film 41 is set so that the discharge current is reduced by more than 5%.

Please REPLACE the paragraph spanning pages 7-8, with the following:

As shown in Fig. 3, the partition pattern is a grid pattern in which each square of the grid pattern encloses a cell C individually. However, it is not a simple check pattern. Namely, the inter-row portion 293 (the portion between the cells aligned in the column direction) of the partition 29 includes two horizontal walls 292 and a part of the vertical wall 291. The plan view pattern of the inter-row portion 293 is made as a ladder pattern, and a space 33 is formed between the gas-filled space 32 that corresponds to each of the cells C aligned in the column direction. Since the dielectric constant of the discharge gas is approximately one eighth of that of a low melting point glass that is a common material of the partition, capacitance between the display electrodes of the neighboring rows is reduced, so that a waste of power consumption can be reduced and response of drive control can be improved. In the check pattern, the side

face of the vertical wall 291 and the side face of the horizontal wall 292 respectively are provided with a fluorescent material, so that the light emission area is enlarged and the light emission efficiency can be improved.

Please REPLACE the paragraph beginning at page 8, line 18, with the following:

In the PDP 1 of this embodiment, the inter-row portion 293 of the partition 29 is made approximately 10 μm lower than other portions, i.e., made approximately 7% lower, relative to the maximum height (140 μm) of the partition 29. Thereby, an air exhaustion path 90 is formed which has a grid shape in the plan view for enabling air exhaustion both in the column direction and in the row direction. The width W20 of the inter-row portion 293 is substantially large, and the inter-row portion 293 is substantially lowered, relative to the other portions, and therefor, the air exhaustion conductance is substantially the same as the stripe pattern. Concrete dimension of the partition 29 is as follows.

Please REPLACE the paragraph beginning at page 9, line 19, with the following:

It is important that the width W20 of the inter-row portion 293 is substantially larger than the width W11 of the vertical wall 291, so that the difference between the widths makes a height difference between the inter-row portion 293 and other portions. Namely, in a baking process of a material such as a general low melting point glass having a heat shrink property, as shown schematically in Fig. 5, the shrink quantity in the height direction depends on the width of the pattern. The shrink can be generated both in the width direction and in the height direction as a whole in the portion 29A having a small pattern width. In contrast, in the portion 29B having a large pattern width, the shrink in the width direction is suppressed more at the portion closer to the center in width direction, so that the shrink is generated more in the height direction, compensating for the suppression in the width direction. Therefore, the thick portion 29B becomes lower in height than the thin portion 29A. In addition, an isotropic shrink occurs in the upper portion of the wall material layer since the shrink can easily occur in any direction, while the shrink in the direction of the substrate surface is suppressed in the bottom portion due to the bond of the substrate. Therefore, the shrink quantity in the height direction becomes larger than the shrink quantity in the direction of the substrate surface. Namely, even if the width of the upper surface is substantially uniform before baking, and if the widths of the bottom surface

are different, the height after baking of the material layer having larger width of the bottom surface becomes lower than the material layer having smaller width of the bottom surface. Considering this fact, the pattern width of the partition is defined as the dimension at the position whose distance from the bottom surface is 10% of the height in this specification. It is desirable that the pattern width of the thick portion is set to be more than 130% of the pattern width of the thin portion so that a difference of height is generated that is sufficient for air exhaustion. In the case of the above-mentioned partition size, two horizontal walls 292 and the portion between them (a part of the vertical wall 291) are shrunk in the same way in the height direction, and a partition 29 is obtained that has two inter-row portions 293 having low profile as a whole in the inter-row portion 293 of the ladder pattern.

Please REPLACE the paragraph beginning at page 11, line 3, with the following:

Concerning optical characteristics of the partition 29, it is desirable that it is semitransparent having the absorptance of visual light at approximately 80% per 30 μm of film thickness. If it is semitransparent, light rays generated at the vicinity of the top of the partition pass the partition and contribute to improvement of the luminance, while external rays that entered the partition are reflected by the bottom surface of the partition and are absorbed by the partition before reaching the front surface. Therefore, a display having a good contrast can be realized.

Please REPLACE the paragraph beginning at page 11, line 13, with the following:

The process of forming the partition 29 is as follows.

(1) Forming the partition material layer having the thickness of approximately 200 μm made of a uniform paste mixture of a low melting point glass powder having the components shown in Table 1 and a vehicle so as to cover the dielectric layer 24. The partition material layer may be formed by any method such as a screen printing method, a laminating method in which a green sheet is transferred, or other method.

(2) Drying the partition material layer, and then sticking thereto a photosensitive dry film (or a resist material is applied), and forming a cut mask of the grid pattern corresponding to the partition 29 by using photolithography, including exposure and development. The mask pattern size is set larger that the desired partition size considering the heat shrink quantity.